Claims

1. A method for control of data flow in a packet data transmission system based on filtering and performing actions on packets flowing through a network, according to predetermined packet processing rules, for example based on their source or destination address or packet type, both for the input packets as well as the output packets of system nodes, during which packets are encapsulated with additional fields so that a packet stream can be obtained at the system output, **characterized in that** to the data processing system comprising a network of nodes in the form of input nodes (**IN1 - INn**), output nodes (**OUT1 - OUTn**) and intermediate nodes, such as data processing nodes (**PROC1 - PROCn**) or multiplexers (**MUX1 - MUXo**), where the nodes are connected in a user-defined structure, the data is supplied to the input nodes (**IN1 - INn**) of the system, and from the data packets read from these nodes (**IN1 - INn**) transmission units are formed, and each of the nodes is assigned input and output rules as well as general rules (**R**) and whenever a packet is available at the node input (**PROC1 - PROCn, MUX1 - MUXo, OUT1 - OUTn**), a check is made whether the general rules apply to a given unit, and in case of a positive result of this check, the commands, determined by these rules, are executed, and then a check is made whether the input rules of the given node apply to a given unit and if they do, the commands, determined by

these rules, are executed and then the node (**IN1 - INn, PROC1 - PROCn, MUX1 - MUXo, OUT1 - OUTn**) functions are preformed and a check is made whether the output rules apply to a given unit and in case of a positive result of this check, the commands, determined by these rules, are executed, and then in the output nodes (**OUT1 - OUTn**), the packets are extracted from transmission units, which are created by adding a label field, a type field and/or a size field to the packet and, when a rule is a conversion rule, a check is made whether a given conversion algorithm requires additional rules being present and if it does and the additional rules are not present, the packet is rejected and the packets to which the rule applies are defined by specifying their label, type, size or similar parameters.

2. A method according to claim 1, **characterized in that** in the input nodes (**IN1 - INn**) the transmission units are assigned labels, which identify the input node (**IN1 - INn**), which a given unit originates from.

3. A method according to claim 1, **characterized in that** the rules define a command assigning labels to a transmission unit.

4. A method according to claim 1, **characterized in that** the rules define a filtering command, the filtering being achieved by replacing packets of given transmission units with empty packets.

5. A method according to claim 1, **characterized in that** the rules define a transmission unit range filtering command, the filtering being achieved by replacing packets of transmission units within a given range with empty packets.

6. A method according to claim 1, characterized **in that** the rules define a command for replacing identification fields of packets in units, the command being implemented by replacing values in given fields with different ones.

7. A method according to claim 1, **characterized in that** the rules define

a keep-units command, the keeping being achieved by passing on only certain transmission units and replacing packets in the remaining transmission units with empty packets.

8.   A method according to claim 1, **characterized in that** the rules define a keep-units range command, the keeping being achieved by passing on only certain range of transmission units and replacing packets in the remaining transmission units with empty packets.

9.   A method according to claim 1, **characterized in that** the rules define a skip-units command, the skipping being achieved by passing on only certain transmission units and deleting the remaining transmission units.

10.   A method according to claim 1, **characterized in that** the rules define a skip-units range command, the skipping being achieved by passing on only certain range of transmission units and deleting the remaining transmission units.

11.   A method according to claim 1, **characterized in that** the rules define an assign command, the command being implemented by assigning a defined value to a predetermined packet identification field in all packets that the rule applies to and which comprise the identification field.

12.   A method according to claim 1, **characterized in that** the rules define a conversion command, the command being implemented by conversion of packets of transmission units from a given format to another predetermined format.

13.   A device for control of data flow in a packet data transmission system, which uses the method for control of data flow in a packet data transmission system, **characterized in that** it comprises at least two input nodes (**IN1 - INn**) that process supplied data, form transmission units and provisionally convert input packet signals from a given format to another, which is performed based on output

rules set for input nodes (**IN1- INn**), the outputs of input nodes (**IN1 - INn**) are con-
nected to other system nodes, including at least one multiplexer (**MUX1 - MUXo**),
and/or at least one data processing node (**PROC1 - PROCn**) and/or at least one
output node (**OUT1 - OUTn**), the nodes process the flowing transmission units
based on the general, input and output rules (**RIN1 - RINn, RMUX1 - RMUXo,
RPROC1 - RPROCn, ROUT1 - ROUTn**) set for nodes according to the data flow
control method described above and the outputs of the multiplexers (**MUX1 -
MUXm**) and data processing nodes (**PROC1 - PROCm**) are connected to other
multiplexers (**MUXn - MUXo**) or data processing nodes (**PROCn**) or output nodes
(**OUT1 - OUTn**), being the terminal nodes in the system in which the transmission
units are converted to the packets they carry.